



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
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**D2594-1****Job Sheet 194469****Part No:** D2594-1**Job Qty:** 160 pcs**Part Name:** Plug**Part Weight:** 0 lbs**Status:** New**Priority:** Medium**Job Created:** 5/3/19**Job Tracking No:****Due Date:** 5/13/19**Created By:** Marie Lajeunesse**Type:** Stock**Description:****Note:** DWG REV C IPP D 02.08.22 Make in Cobra KJ IPP E 06.12.11 ecn 836 EC**Ship Via:****Bill of Materials****Job Routing**

| Op No | Operation    | Qty        | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off    |
|-------|--------------|------------|------------|----------|-----------|---------|-----------------------|-----------|-------------|
|       |              |            |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |             |
| 100   | Hardinge - 1 | 160<br>pcs |            | 5/13/19  | 0.01      | 4.60    | Hardinge - 1          |           |             |
| 110   | QC 2         | 160<br>pcs |            | 5/13/19  | 0.00      | 0.00    | QC 2 - 1              |           | JBD H/06/11 |
|       |              |            |            |          |           |         | QC 2 - 12             |           |             |
|       |              |            |            |          |           |         | QC 2 - 14             |           |             |
|       |              |            |            |          |           |         | QC 2 - 17             |           |             |
|       |              |            |            |          |           |         | QC 2 - 19             |           |             |
|       |              |            |            |          |           |         | QC 2 - 2              |           |             |
|       |              |            |            |          |           |         | QC 2 - 20             |           |             |
|       |              |            |            |          |           |         | QC 2 - 22             |           |             |
|       |              |            |            |          |           |         | QC 2 - 23             |           |             |
|       |              |            |            |          |           |         | QC 2 - 25             |           |             |
|       |              |            |            |          |           |         | QC 2 - 32             |           |             |
|       |              |            |            |          |           |         | QC 2 - 33             |           |             |
|       |              |            |            |          |           |         | QC 2 - 35             |           |             |
|       |              |            |            |          |           |         | QC 2 - 39             |           |             |
|       |              |            |            |          |           |         | QC 2 - 4              |           |             |
|       |              |            |            |          |           |         | QC 2 - 40             |           |             |
|       |              |            |            |          |           |         | QC 2 - 44             |           |             |
|       |              |            |            |          |           |         | QC 2 - 45             |           |             |
|       |              |            |            |          |           |         | QC 2 - 48             |           |             |
|       |              |            |            |          |           |         | QC 2 - 49             |           |             |
|       |              |            |            |          |           |         | QC 2 - 50             |           |             |
|       |              |            |            |          |           |         | QC 2 - 51             |           |             |
|       |              |            |            |          |           |         | QC 2 - 52             |           |             |
|       |              |            |            |          |           |         | QC 2 - 57             |           |             |
|       |              |            |            |          |           |         | QC 2 - 62             |           |             |
|       |              |            |            |          |           |         | QC 2 - 63             |           |             |
|       |              |            |            |          |           |         | QC 2 - 8              |           |             |
|       |              |            |            |          |           |         | QC 2 - 66             |           |             |
|       |              |            |            |          |           |         | QC 2 - 64             |           |             |

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|                                   |            |         |           |                           |               |
|-----------------------------------|------------|---------|-----------|---------------------------|---------------|
| 120 QC 8                          | 160<br>pcs | 5/13/19 | 0.00 0.00 | QC 2 - 65                 | JRD 19/06/11  |
|                                   |            |         |           | QC 2 - 5                  |               |
|                                   |            |         |           | QC 2 - 71                 |               |
|                                   |            |         |           | QC 8 - 12                 |               |
|                                   |            |         |           | QC 8 - 14                 | MA 19/06/13   |
|                                   |            |         |           | QC 8 - 17                 |               |
|                                   |            |         |           | QC 8 - 20                 |               |
|                                   |            |         |           | QC 8 - 25                 |               |
|                                   |            |         |           | QC 8 - 3                  |               |
|                                   |            |         |           | QC 8 - 32                 |               |
|                                   |            |         |           | QC 8 - 33                 |               |
|                                   |            |         |           | QC 8 - 35                 |               |
|                                   |            |         |           | QC 8 - 39                 |               |
|                                   |            |         |           | QC 8 - 4                  |               |
|                                   |            |         |           | QC 8 - 44                 |               |
|                                   |            |         |           | QC 8 - 45                 |               |
|                                   |            |         |           | QC 8 - 49                 |               |
|                                   |            |         |           | QC 8 - 58                 |               |
|                                   |            |         |           | QC 8 - 8                  |               |
|                                   |            |         |           | QC 8 - 9                  |               |
|                                   |            |         |           | QC 8 - 68                 |               |
|                                   |            |         |           | QC 8 - 67                 |               |
|                                   |            |         |           | QC 8 - 1 (A)              |               |
|                                   |            |         |           | QC 8 - 47                 |               |
|                                   |            |         |           | QC 8 - 40                 |               |
|                                   |            |         |           | QC 8 - 52                 |               |
|                                   |            |         |           | QC 8 - 23                 |               |
| 130 Handfinish - 1-1 Chemical-B4B | 160<br>pcs | 5/13/19 | 0.00 0.37 | Handfinish - 1 - 1 - B4B  |               |
|                                   |            |         |           | Handfinish - 1 - 2 - B4B  |               |
|                                   |            |         |           | Handfinish - 1 - 3 - B4B  | ★ JUN 13 2019 |
|                                   |            |         |           | Handfinish - 1 - 4 - B4B  |               |
|                                   |            |         |           | Handfinish - 1 - 5 - B4B  |               |
|                                   |            |         |           | Handfinish - 1 - 6 - B4B  |               |
|                                   |            |         |           | Handfinish - 1 - 7 - B4B  |               |
|                                   |            |         |           | Handfinish - 1 - 8 - B4B  |               |
|                                   |            |         |           | Handfinish - 1 - 9 - B4B  |               |
|                                   |            |         |           | Handfinish - 1 - 10 - B4B |               |
|                                   |            |         |           | Handfinish - 1 - 11 - B4B |               |
|                                   |            |         |           | Handfinish - 1 - 12 - B4B |               |
|                                   |            |         |           | Handfinish - 1 - 13 - B4B |               |
|                                   |            |         |           | Handfinish - 1 - 14 - B4B |               |
|                                   |            |         |           | Handfinish - 1 - 15 - B4B |               |
|                                   |            |         |           | Handfinish - 1 - 16 - B4B |               |
|                                   |            |         |           | Handfinish - 1 - 17 - B4B |               |
|                                   |            |         |           | Handfinish - 1 - 18 -     |               |

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|     |                                 |         |         |           |                           |          |
|-----|---------------------------------|---------|---------|-----------|---------------------------|----------|
|     |                                 |         |         |           | B4B                       |          |
|     |                                 |         |         |           | Handfinish - 1 - 19 - B4B |          |
|     |                                 |         |         |           | Handfinish - 1 - 20 - B4B |          |
|     |                                 |         |         |           | Handfinish - 1 - 21 - B4B |          |
|     |                                 |         |         |           | Handfinish - 1 - 22 - B4B |          |
| 135 | Powdercoat - 1 White Gl(A)- B4B | 160 pcs | 5/13/19 | 0.00 0.25 | Powdercoat - 1 - B4B      |          |
|     |                                 |         |         |           | Powdercoat - 2 - B4B      |          |
|     |                                 |         |         |           | Powdercoat - 3 - B4B      | BK19-6-A |
|     |                                 |         |         |           | Powdercoat - 4 - B4B      |          |
| 150 | QC 3                            | 160 pcs | 5/13/19 | 0.00 0.00 | QC 3 - 10                 |          |
|     |                                 |         |         |           | QC 3 - 13                 |          |
|     |                                 |         |         |           | QC 3 - 15                 |          |
|     |                                 |         |         |           | QC 3 - 17                 |          |
|     |                                 |         |         |           | QC 3 - 18                 |          |
|     |                                 |         |         |           | QC 3 - 2                  |          |
|     |                                 |         |         |           | QC 3 - 28                 |          |
|     |                                 |         |         |           | QC 3 - 3                  |          |
|     |                                 |         |         |           | QC 3 - 30                 |          |
|     |                                 |         |         |           | QC 3 - 34                 |          |
|     |                                 |         |         |           | QC 3 - 36                 |          |
|     |                                 |         |         |           | QC 3 - 41                 |          |
|     |                                 |         |         |           | QC 3 - 51                 |          |
|     |                                 |         |         |           | QC 3 - 58                 |          |
|     |                                 |         |         |           | QC 3 - 59                 |          |
|     |                                 |         |         |           | QC 3 - 68                 |          |
|     |                                 |         |         |           | QC 3 - 9                  |          |
|     |                                 |         |         |           | QC 3 - 40                 |          |
|     |                                 |         |         |           | QC 3 - 19                 |          |
|     |                                 |         |         |           | QC 3 - 43                 |          |
|     |                                 |         |         |           | QC 3 - 24                 |          |
| 160 | Packaging 3-1 - Stock - B4B     | 160 pcs | 5/13/19 | 0.00 0.00 | Packaging 3 - 1 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 2 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 3 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 4 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 5 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 6 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 7 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 8 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 9 - B4B     |          |
|     |                                 |         |         |           | Packaging 3 - 10 - B4B    |          |
|     |                                 |         |         |           | Packaging 3 - 11 - B4B    |          |
|     |                                 |         |         |           | Packaging 3 - 12 - B4B    |          |
|     |                                 |         |         |           | Packaging 3 - 13 - B4B    |          |
|     |                                 |         |         |           | Packaging 3 - 14 - B4B    |          |
|     |                                 |         |         |           | Packaging 3 - 15 - B4B    |          |
|     |                                 |         |         |           | Packaging 3 - 16 - B4B    |          |
|     |                                 |         |         |           | Packaging 3 - 17 - B4B    |          |
|     |                                 |         |         |           | Packaging 3 - 18 - B4B    |          |

DAS  
40  
9-89  
JUN 19 2019



|     |            |     |         |           |                        |                |
|-----|------------|-----|---------|-----------|------------------------|----------------|
|     |            |     |         |           | Packaging 3 - 19 - B4B |                |
|     |            |     |         |           | Packaging 3 - 20 - B4B |                |
|     |            |     |         |           | Packaging 3 - 21 - B4B |                |
|     |            |     |         |           | Packaging 3 - 22 - B4B |                |
|     |            |     |         |           | Packaging 3 - 23 - B4B |                |
|     |            |     |         |           | Packaging 3 - 24 - B4B |                |
|     |            |     |         |           | Packaging 3 - 25 - B4B |                |
|     |            |     |         |           | Packaging 3 - 26 - B4B |                |
|     |            |     |         |           | Packaging 3 - 27 - B4B |                |
|     |            |     |         |           | Packaging 3 - 28 - B4B |                |
|     |            |     |         |           | Packaging 3 - 29 - B4B |                |
|     |            |     |         |           | Packaging 3 - 30 - B4B |                |
|     |            |     |         |           | Packaging 3 - 31 - B4B |                |
|     |            |     |         |           | Packaging 3 - 32 - B4B |                |
|     |            |     |         |           | Packaging 3 - 33 - B4B |                |
|     |            |     |         |           | Packaging 3 - 34 - B4B |                |
|     |            |     |         |           | Packaging 3 - 35 - B4B |                |
|     |            |     |         |           | Packaging 3 - 36 - B4B |                |
| 170 | QC 21 - SA | 160 | 5/13/19 | 0.00 0.00 | QC 21 - SA - 21        |                |
|     |            | pcs |         |           | QC 21 - SA - 70        | DAS            |
|     |            |     |         |           | QC 21 - SA - 53        | 21 JUN 19 2019 |

Part Op 100 - (Hardinge) 1-Make as per Dwg D2594-1 and Folio FA262.  
 Descriptions: 110 - (QC2- Inspect parts off machine FAI/FAIB)  
 120 - (QC8- Inspect parts - second check)  
 130 - (Chemical Conversion Coat per QSI005 4.1)  
 135 - (White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum) START TIME: \_\_\_\_\_  
 150 - (QC3- Inspect Part Finish)  
 160 - (Identify as per dwg & Stock Location: \_\_\_\_\_) LOCATION : FP001  
 170 - (QC21- Final Inspection - Work Order Release)

## Job BOM

| Part / Item   | Component Name          | Quantity             | Operation        | Container     |
|---------------|-------------------------|----------------------|------------------|---------------|
| M6061T6R0.625 | 6061-T6 Round Bar .625" | 8.3360 ft (.0521 ea) | 100-Hardinge - 1 | 5180494 10534 |

## Job Allocations

| Operation        | Component Part | Required | Inventory | Allocated |
|------------------|----------------|----------|-----------|-----------|
| 100-Hardinge - 1 | M6061T6R0.625  | 8        | 25        | 0         |

| Part Specifications |             |                                |                |      |                  |
|---------------------|-------------|--------------------------------|----------------|------|------------------|
| Spec No             | Description | Target/Tolerance               | Limits         | Type | Special Comments |
| 1                   | Plug        | 0.060inches $\pm$ 0.005        | 0.065<br>0.055 |      |                  |
| 2                   | Plug        | 0.500inches $\pm$ 0.010        | 0.510<br>0.490 |      |                  |
| 3                   | Plug        | 0.625inches $\pm$ 0.010        | 0.635<br>0.615 |      |                  |
| 4                   | Plug        | 0.430inches + 0.000<br>- 0.002 | 0.430<br>0.428 |      |                  |
| 5                   | Plug        | 0.090inches + 0.000<br>- 0.002 | 0.090<br>0.088 |      |                  |
| 6                   | Plug        | 0.045inches + 0.000<br>- 0.002 | 0.045<br>0.043 |      |                  |

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Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QS1042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Preservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |

**DART**  
AEROSPACE

Container No: S189025



Part: D2594-1  
Job No: 194469  
Serial No/Batch: S189025

Revision:  
Inspector:  
Exp Date:

Instructions: Various STC's

Date: 06/11/19

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